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REMARKS

Claims 27-29 remain pending in the present application.

Rejection under 35 U.S.C. §103(a) over Sarni et al.

In view of GB 1,060,689 and further in view of "Sit Back and Relax"

Claims 27-29 stand rejected under 35 U.S.C. §103(a) as being obvious over Sarni et al. in view of GB 1,060,689 (hereinafter GB '689) and further in view of "Sit Back and Relax" (citation omitted). Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

Present claim 27 requires an apparatus for heat-treating a sheet material comprising a first heating zone comprising an air-impingement floatation dryer, a second heating zone comprising a vacuum belt oven, and a tension isolation means disposed between the first and second heating zones, wherein the tension isolation means applies tension to the sheet as it is conveyed through the first heating zone and causes a reduction in tension on the sheet as the sheet exits the tension isolation means and is conveyed through the second heating zone.

Applicants reiterate their comments in traverse of the application of Sarni et al. to the present claims, as set forth in detail in their response dated 15 May 2006.

In the outstanding Office Action, the Examiner states:

Sarni et al. disclose apparatus for mid-driven [1] flexographic printing presses. The web of material proceeds through a number of [2] printing and drying sections (equivalent to Applicant's heating zones- Column 3). Between the zones [3] is a mid-driven tension feed which controls tension and is equivalent to the tension isolation means required in claim 27. (Office Action, page 2, numbering and emphasis added).

Applicants traverse the Examiner's reading of Sarni et al., quoted above, as to at least the three numbered phrases.

Initially, the presently claimed apparatus is for heat-treating a sheet material (i.e. the entire sheet material), whereas Sarni et al.'s device is a flexographic printing press. Any "heat treatment" occurring within the Sarni et al. device is strictly for drying ink applied to the printed material, and not for heat treating the material, per se. As such, Sarni et al. is non-analogous art to the presently claimed apparatus.

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The quotation from the outstanding Office Action conveniently omits any specific numeration of the devices relied upon by the Examiner as relevant to the present claims. Because of this omission, the Examiner's argument unfairly ignores a particular distinction between the various sections of the Sarni et al. device.

Referring to Figure 1 of Sarni et al., as described at column 3, lines 33-65, the Sami et al. apparatus comprises several printing/drying stations within printing/drying section 16, through which the web material passes. Applicants respectfully traverse the Examiner's finding (phrase [2] above) that Sarni et al.'s "printing and drying" stations are equivalent to the first and second heating zones of the present claims. As is made clear above, the printing/drying stations 16 in Sarni et al. are used to print different colors on the material (col. 3, lines 42-44). They are not used to heat treat the entire material, but to dry the ink printed thereon.

But, even if, *arguendo*, the Examiner's determination of the equivalence of the Sarni et al. printing/drying stations with the first and second heating zones of the present invention is accepted, (phrase [3] above) the Sarni et al. tension controlling system 12 is not disposed between any two printing/drying stations (between the first and second heating zones...claim 27) in section 16, but instead downstream of all said printing/drying stations. Sarni et al. state:

To help maintain the desired even tension through the printing/drying section 16, the present invention involves the mounting of the mid-driven infeed tension controlling system 12 between the printing/drying section 16 and the converting section 18. (Col. 3, lines 60-65; emphasis added).

According to Sarni et al., the tension controlling system is mounted between the series of printing/drying stations 16, and a "converting section" 18, which is disclosed to be "utilized to die cut, crease, perforate, laminate, etc." (col. 3, lines 45-47). The "converting section" 18 of the Sami et al. device is not disclosed to be a "heating zone", and is not equivalent to a heating zone of the present invention.

GB '689 was originally cited by the Examiner for the purpose of suggesting that it is known to use serpentine rolls to isolate tension within a fabric processing apparatus. However, in the outstanding Office Action, the Examiner appears to equate the entire GB '689 apparatus with an air impingement dryer (Office Action, page 2, last paragraph).

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Applicants traverse the Examiner's finding. The Examiner's attention is directed to the language of claim 27, which requires that the first heating zone comprise an air-impingement floatation dryer. The air-impingement floatation dryer is described at page 8, lines 10-15 of the present specification:

In the embodiment shown in Figure 1, the first drying zone includes air-impingement floatation dryer 2. Hot air is blown from a plurality of air supply slots 3 located on both sides of the fabric. The impinging air streams cause the fabric to float as it is pulled through the dryer by tension applied to the fabric by a set of three serpentine rolls 4. (Emphasis added).

Nowhere does GB '689 disclose or suggest that the fabric being treated therein is caused to float through a drying section. Accordingly, the Examiner's purported *prima facie* case of obviousness fails, since even in combination, the references fail to disclose each and every limitation of the claims. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Further, as stated in the outstanding Office Action, the Examiner now proposes that the "air-impingement dryer" of GB '689 could be substituted for the "equivalent" structures in Sarni et al., i.e. the printing/drying stations. However, to do so would destroy the function of the Sarni et al. device, which is a flexographic printing machine. Replacement of the printing/drying stations would eliminate the ability of the Sarni et al. device to print.

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). MPEP 2143.01

Finally, the Examiner proposes substituting a vacuum belt oven (Sit Back and Relax) into the Sarni et al./GB '689 modified device. The Examiner is not specific as to where in the Sarni et al. device the vacuum belt oven is intended to be inserted (Office Action, page 3, first two paragraphs). Applicants assume that the Examiner intends that at least one of the printing/drying stations 16 of Sarni et al. is to be replaced by a vacuum belt dryer. If this is indeed the Examiner's meaning, then there are two problems. First, such a substitution would again destroy the functioning of

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the Sarni et al. device, as no printing station would be incorporated. Sarni et al. fail to suggest that the printing/drying stations are separately incorporated, and therefore provides no direction to the skilled artisan how to replace one without the other. Second, as discussed above, even if those skilled in the art would have been motivated to in some manner substitute the heat treating device of GB '689 for one of the printing/drying stations of Sarni et al., and a vacuum belt oven according to "Sit Back and Relax" for a second printing/drying station of Sarni et al., both these substituted drying devices would be on the same side, i.e. upstream, of the tension controlling device 12 of Sarni et al., which is mounted after the series of printing/drying stations 16 (Fig. 1). In contrast, according to present claim 27, the tension isolation means is disposed between the first and second heating zones.

Applicants respectfully submit that the references are improperly combined; but even in combination, fail to teach each and every limitation of the present claims, and therefore fail to establish a *prima facie* case of obviousness as to the present claims.

Alternatively, Applicants respectfully submit that the proposed combination of references is merely an impermissible hindsight reconstruction of the presently claimed invention, derived from a reading of the present specification and not fairly suggested by the cited prior art references. Withdrawal of the rejection is requested.

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In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,



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